

What is claimed is:

1. A silent chain and sprocket assembly
comprising:

a sprocket having a plurality of low profile
protrusions extending outwardly from said sprocket at
5 locations spaced along an outer periphery of the
sprocket;

a silent chain having a series of interleaved inner
and outer link rows that are interleaved along a chain
direction;

10 adjacent inner and outer link rows are joined to
each other by members extending through interleaved
portions of adjacent inner and outer link rows to form a
rotatable joint between the adjacent inner and outer link
rows;

15 the links of said inner and outer link rows form a
surface that overlies the sprocket protrusions and
conforms closely to said low profile protrusions on said
sprocket; and

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the link surface extending along the chain direction
20 a distance substantially the length of the link along the
chain direction.

2. The silent chain and sprocket assembly of claim 1
wherein the surface of the links that is sized to overlie
the low profile protrusions of the sprocket is at a back-
side of the chain.

3. The silent chain and sprocket assembly of claim
2 wherein the links have a surface that defines two teeth
extending from the link at a front-side of the chain.

4. The silent chain and sprocket assembly of claim
1 wherein the surface that overlies the sprocket
protrusions extends along the chain direction of the
links a distance that approximates the distance from a
5 center of a member joining the link to one adjacent row
of links to a center of a member joining the link to
another adjacent row of links.

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the link plates forming two teeth to engage a tooth of said front-side sprocket at an end of the link along the chain direction, to engage a second tooth at another end of the link along the chain direction, and to engage a third tooth intermediate the teeth at the ends of the link plate;

the link plates defining a back-side surface that conforms closely to a portion of the back-side sprocket extending a distance substantially equal to a length of 30 the link plates along the chain direction.

6. The silent chain and sprocket assembly of claim 5 wherein the low profile protrusions of the back-side sprocket are formed by two sprocket surfaces that meet at the protrusion and extend oppositely from each other along the periphery of the back-side sprocket from a first end to a second end a distance that is approximately the length of the back-side surface of the link plates.

7. The silent chain and sprocket assembly of claim 6 wherein the back-side sprocket surfaces are generally flat.

8. The silent chain and sprocket assembly of claim 6 wherein the back-side sprocket surfaces are generally flat between the first and second ends, and that extend outwardly from the back-side sprocket near their first and second ends.

9. The silent chain and sprocket assembly of claim 5 wherein the back-side surfaces of the link plates closely conform to the low profile protrusions along the back-side sprocket, to the back-sides formed to extend along the periphery of the sprocket to overlies a protrusion.